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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/767,438	01/30/2004	Hidetoshi Tanaka	TSUT 0027	7227

7590

03/03/2006

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EXAMINER

GONZALEZ, JULIO C

ART UNIT	PAPER NUMBER
2834	

DATE MAILED: 03/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/767,438	TANAKA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Julio C. Gonzalez	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5 is/are allowed.
- 6) ☒ Claim(s) 6-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Objections*

Claim 12 is objected to because of the following informalities: In claim 12, line 3, it may seem as if the vibrator is provided with a first *electrode*, or a second electrode surface. The Examiner is not sure as how to go about the amendment filed on 02/16/06. In any event, it may seem as if the sentence/statement in line 3 which reads, the “vibrator provided with said first [...]” is missing some element(s). Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 6, 12, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over of Hartemann et al (US 4,515,016) in view of Tavkhelidze et al (US 6,720,704) and Yano et al (US 4,814,657).

Hartemann et al discloses a vibrator having a first and second electrode, a vibrator (see figure 5), a base 1, a pedestal 2, a mass 27 and two plates (see figure 5), which support and sandwich mass 27.

However, Hartemann et al does not disclose explicitly having an electrode terminal connected to each electrode.

On the other hand, Tavkhelidze et al discloses for the purpose of effectively spacing electrodes at close proximity, electrodes 1,5, electrode terminal 27 connected to electrodes 1, 5, which performs an input/output of charges (see figure 1).

However, neither Hartemann et al nor Tavkhelidze et al disclose using and varying the distance between capacitors to obtain electrical power.

On the other hand, Yano et al teaches for the purpose of providing an efficient constant flow of current that it is known in the art to use capacitors for providing mechanical motion and converting the mechanical motion into electrical energy (see abstract; column 1, lines 53-55). Moreover, it is taught that power can be obtained by varying the distance between capacitors (column 3, lines 14-24; column 12, lines 55-56 & see figures 12A, 12B, 12C, 12D).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design a vibrator as disclosed by Hartemann et al and to

use the teachings of Tavkhelidze et al of having a terminal for the electrodes providing an input/output of charges for the purpose of effectively spacing electrodes at close proximity and to explicitly disclose using capacitors for producing power for the purpose of providing an efficient constant flow of current as taught by Yano et al.

3. Claims 7, 8, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartemann et al and Tavkhelidze et al and Yano et al as applied to claims 6 and 12 above, and further in view of Kasahara et al (US 2001/0028203).

The combined vibrator discloses all of the elements above. However, the combined vibrator does not disclose that the base has contact prevention devices.

On the other hand, Kasahara et al discloses for the purpose of preventing short circuits between electrodes, stoppers 10 for preventing contact between electrodes 22A and 30A (see figures 13A, 18A).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined vibrator as disclosed above and to use stoppers for the purpose of preventing short circuits between electrodes as disclosed by Kasahara et al.

4. Claims 9, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartemann et al and Tavkhelidze et al and Yano et al as applied to claim 6 above, and further in view of ordinary skill in the art.

The combined vibrator discloses all of the elements above. However, the combined vibrator does not disclose using two or more supports for the mass.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the above vibrator by duplicating the support plates, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

#### ***Response to Arguments***

5. Applicant's arguments with respect to claims 6-15 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Allowable Subject Matter***

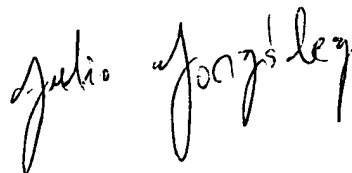
6. Claims 1, 2, 3, 4 and 5 are allowed.

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio C. Gonzalez whose telephone number is 571-272-2024. The examiner can normally be reached on M-F (8AM-5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink that reads "Julio Gonzalez". The signature is written in a cursive, flowing style.

Julio C. Gonzalez  
Examiner  
Art Unit 2834

Jcg

February 28, 2006